

Immunisation in a curative setting

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Abstract

Objective—To study the uptake of vaccination offered to women and children attending a curative health facility.

Design—Prospective survey over eight months of the uptake of vaccination offered to unimmunised women and children attending a diarrhoeal treatment centre as patients or attendants.

Setting—The International Centre for Diarrhoeal Disease Research, Dhaka, Bangladesh.

Subjects—An estimated 19 349 unimmunised women aged 15 to 45 and 17 372 children attending the centre for treatment or accompanying patients between 1 January and 31 August 1989.

Main outcome measures—The number of women and children who were unimmunised or incompletely immunised was calculated and the percentage of this target population accepting vaccination was recorded.

Results—7530 (84.2%) Of 8944 eligible children and 7730 (40.4%) of 19 138 eligible women were vaccinated. Of the children, 63.8% were boys, 75.9% were aged under 1 year, and 23.0% were aged 1 to 2 years. The estimated number of missed opportunities for vaccination was 716 among the children (8.0% of the target population) and 11 408 among the women (59.6% of those eligible).

Conclusion—It is possible to establish immunisation services at a health facility treating acutely ill patients.

Introduction

The fear that patients have negative perceptions of curative services has been used to justify the separation

of preventive services from curative services,¹ but an alternative argument recommends that preventive measures should be promoted at every contact with health services.^{2,4} The Expanded Programme on Immunisation in Bangladesh recommends that all hospitals and maternal and child welfare clinics should provide at least two immunisation sessions each week.⁵ Following these guidelines, the International Centre for Diarrhoeal Disease Research in Dhaka initiated immunisation services for all women and children attending for treatment or accompanying patients. This paper summarises the first eight months of the scheme.

Methods

The national Expanded Programme on Immunisation was introduced in 1979 and targeted at women of childbearing age (15-45 years) and children under 2 years. The programme covers poliomyelitis; BCG; diphtheria, pertussis, and tetanus triple vaccine; measles immunisation in children; and tetanus toxoid in women. Vaccines are withheld only if a person is so ill as to require admission to hospital,⁶ and malnutrition is considered to be an added indication for immunising children.^{3,5}

In 1988, 82 720 patients were treated for diarrhoea or its complications at the International Centre for Diarrhoeal Disease Research in Dhaka, 29 343 (35.5%) staying for more than 12 hours. All treatment was free. Children under the age of 2 made up 45% of the patients, and 46% of these children had a poor nutritional state.

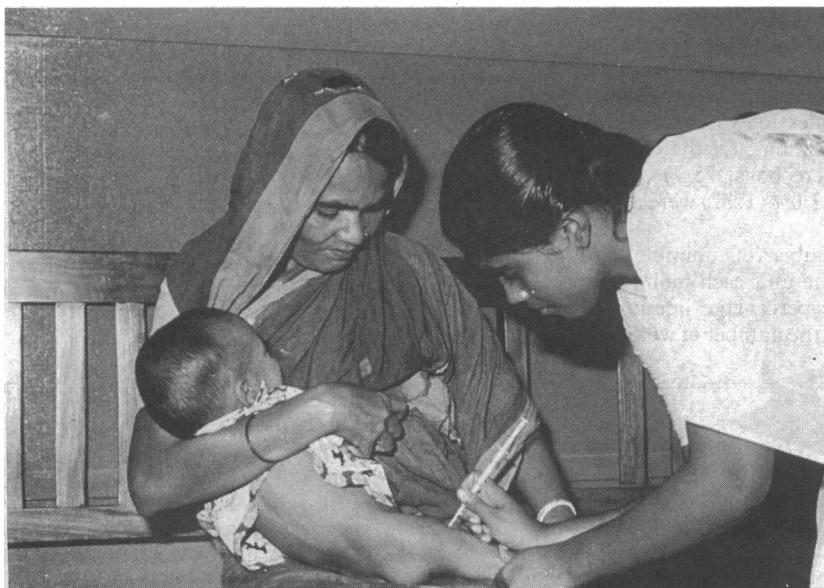
In October 1988 a preventive child health programme funded by the Danish International Development Agency and offering health education and immunisation was set up at the centre. Vaccines and other supplies are provided by the national Expanded Programme on Immunisation. Mothers, mainly from the slum areas of Dhaka, are offered one year's in service training as urban volunteers at the centre. The trainee volunteers and health education workers (who have a short additional training) give health education, including information about immunisation, to all patients and their attendants at the centre.

Immunisation is offered in the same building as the treatment centre and is available from 7 am to 7 pm every day. An immunisation history is taken from all children in the target age group on discharge from the unit, and parents of unimmunised or partly immunised children who agree to have their child immunised participate in small group discussions of the benefits of immunisation. If there are no contraindications the vaccines are given and an Expanded Programme on Immunisation record card is completed and given to the parents. Unimmunised women are also offered appropriate vaccinations. The women and children can return to the centre for follow up doses or can attend local clinics run by the Expanded Programme on Immunisation.

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Malnourished child being immunised at the International Centre for Diarrhoeal Disease Research, Bangladesh

Month	No of patients admitted	Estimated No of unimmunised women*	No (%) with contraindications to immunisation	No (%) refusing to be immunised	No eligible for immunisation	No (% of total eligible) immunised at centre
January	4 789	1 862	5 (0.3)	4 (0.2)	1 853	797 (43.0)
February	3 926	1 526	42 (2.8)	14 (1.0)	1 470	794 (54.0)
March	5 163	1 995	21 (1.1)	13 (0.7)	1 961	908 (46.3)
April	8 589	3 205	16 (0.5)	21 (0.7)	3 168	1 194 (37.7)
May	8 071	4 520	13 (0.3)	15 (0.3)	4 492	1 214 (27.0)
June	5 737	3 217	10 (0.3)	13 (0.4)	3 194	1 060 (33.2)
July	4 188	1 573	13 (0.8)	5 (0.3)	1 555	881 (56.7)
August	3 854	1 451	6 (0.4)	0	1 445	882 (61.0)
Total	44 317	19 349	126 (0.7)	85 (0.4)	19 138	7 730 (40.4)

*From bimonthly surveys on the number of unimmunised women coming to the centre as patients or as attendants.

During the first eight months of the programme all patients attending the unit were registered by age. Children who were up to date with their immunisations were identified, and a record was made of unimmunised children who refused to be immunised, had a contraindication, were discharged between 7 pm and 7 am, or failed to report to the immunisation room. Age, sex, address, and vaccines were recorded for all children immunised at the centre. Patients returning to the centre for follow up doses were recorded, although there was no way of knowing how many patients attended local clinics for further vaccinations.

Most women coming to the centre were attendants of patients and so were not registered. The number of unimmunised women was therefore estimated by surveying, every two months, all women (patients or attendants) in the target age group present in the centre on a given day.

The number of missed opportunities for vaccinating children was calculated assuming that the percentage of fully immunised children was the same as in those attending and not attending the immunisation room. The number of missed opportunities in the women was calculated as the estimated number of unimmunised women minus the total number immunised at the centre or with a contraindication.

Results

Between 1 January and 31 August 1989, 17 372 children were treated for diarrhoea at the centre. Of these, 8038 (46.3%) were up to date with their immunisations and 390 (2.2%) had a contraindication to vaccination. Of the remaining 8944 children, 7530 (84.2%) agreed to be immunised and 81 (0.9%) refused. The remaining 1333 children did not report to the immunisation staff: assuming that 46.3% of them were up to date with their immunisations, the estimated number of missed opportunities for vaccination was 716 (8.0% of the target population). Of the children immunised, 63.8% (4804) were boys, 75.9% (5715) were aged under 1 year, and 23.0% (1732) were aged 1 to 2 years.

The table shows the number of unimmunised women estimated to attend the unit each month and the number vaccinated. The percentage immunised was negatively correlated with the number of women in

the target group ($r = -0.972$, $p < 0.001$). The total number of missed opportunities was 11 408 (59.6% of those eligible). The number of people returning to the centre for follow up vaccinations was inversely related to the distance of the centre from their home (almost twice as many children living in Dhaka than outside Dhaka received follow up vaccinations at the centre) but these data are incomplete because the number attending for follow up at their local clinics is unknown.

Discussion

It is the policy of the Expanded Programme on Immunisation in Bangladesh that all health facilities should provide immunisation for women and children in the target groups, but a study in 1988 showed that this had not been achieved.⁷ We found that when immunisation was offered at the International Centre for Diarrhoeal Disease Research, Bangladesh, only 8% of eligible children were missed. Women were more reluctant to accept immunisation for themselves and nearly 60% missed the opportunity of obtaining immunisation for which they were eligible.

These results show that it is possible to establish immunisation services at a health facility treating acutely ill patients. Hospitals and other treatment facilities can play an important part in vaccinating children and increasing people's knowledge about immunisation.

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ANY QUESTIONS

A 60 year old woman diagnosed as having rheumatoid arthritis was treated with flurbiprofen. Aspiration of a swollen knee produced a green coloured fluid. Might this coloration be the result of the drug?

I have not been able to find any information to suggest that flurbiprofen can colour joint fluid green and the manufacturer has no reports of such an

effect. Several studies have shown that various non-steroidal anti-inflammatory drugs are present in synovial fluid after oral administration but I am not aware of any that comment on colour changes. In active rheumatoid arthritis the joint fluid may occasionally have a greenish tinge, presumably owing to the presence of active inflammation. —LINDA BEELEY, director, Drug and Therapeutics Unit, Birmingham